

1 Second Supplemental Response, to monoammonium phosphate. This and other like
2 changes are found in the following paragraphs.

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4 **Claim Rejection under 35 USC 102**

5 **Claims Cancelled:** claims cancelled in the initial Response of October 15, 2001
6 and the Supplemental Response of October 24, 2001 are the following: October 15, 2001
7 - 14, 15, 27, 28, 40 and 41. October 24, 2001 - 4, 5, 10, 11, 17, 18, 23, 24, 30, 31, 36 and
8 37.

9 **Parham:** The Examiner has rejected claims 16-24, 26-27, 29-37, 39-40 under 35
10 U.S.C. 102(b) as being anticipated by Parham, Jr. et al, Patent No. 3798020. Your
11 applicant has previously set out arguments regarding Parham. Your applicant now
12 supplements those arguments. Claims 17, 18, 23, 24, 30, 31, 36 and 37 have been
13 cancelled. In addition to prior argument, your applicant only uses one acid in the
14 presence of a monoammonium phosphate fertilizer.

15 As previously stated, regarding Parham et al, "The patent provides a mixture of
16 citric acid and phosphoric acid ions in combination to overcome this problem". The
17 Examiner's attention is drawn to the specification and claims of your applicant. The
18 disclosure and claims of Parham et al differs from your applicant's claims in that your
19 applicant only uses one acid in the presence of a monoammonium phosphate fertilizer.
20 Monoammonium phosphate is referenced in the specification at pages 6 and 7, Examples
21 1 and 2. Your applicant does not disclose or claim a combination of citric and phosphoric
22 acids and your applicant does not disclose or claim a combination of organic and
23 inorganic acids. Your applicant discloses and claims the use of only one acid. Further,
24 your applicant use none of the ions in the group in Parham et al at claim 1, column 8,
25 commencing at line 5. Additionally your applicant does not disclose or claim the use of

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polyphosphate in proportion to citric acid at a ratio of 0.5 to 10 parts by weight of polyphosphate as is seen at claim 1 of Parham. Claims referring to a polyphosphate compound have been cancelled including claims 11, 24 and 37.

Beaty and Neumiller: The Examiner has rejected claims 16,-18, 23-25, 27-28 under 35 U.S.C. 102(b) as being anticipated by Beaty, Patent No. 5634959, or Neumiller, Patent No. 3918952. The Examiner has stated that "The patents show EDTA and polyphosphate in fertilizer formulations in amounts that coincide herein." The Examiner cites Col. 4 in '959 and examples 1 and 8 for instance, in '952.

Your applicant respectfully responds as follows re: Beaty: Your applicant neither specifies nor claims use of seaweed, fish solubles, magnesium sulfate, calcium silicate or potassium. Regarding Neumiller please note that your applicant neither specifies nor claims EDTA, alcohol, surfactant, urea or KCl. Your applicant's use discloses a much higher chelate concentration far outside the range of Neumiller.

Claims referring to a polyphosphate compound have been cancelled including claims 11, 24 and 37.

Claims 1, 16, and 29 have been amended. Claim 1 has been amended as follows:
"a. administering to the soil in which the plants grow, a monoammonium phosphate plant soil fertilizer[composition]; and

b. shielding the fertilizer, by use of an acid, from interference with any metal ions in the soil in which the plants grow during said administration of the fertilizer to the plant roots, thereby enhancing delivery of the fertilizer to the plant roots; and

c. where said acid is an inorganic acid or an organic acid containing three or less carboxyl groups."

Claims 16 has been amended as follows: "A monoammonium phosphate plant

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1 fertilizer [composition comprising an acid] in combination with an acid wherein the acid
2 is an inorganic acid or an organic acid containing three or less carboxyl groups
3 (whereby) wherein said acid reacts with any metal ions in the soil in which the plants
4 grow thereby shielding the fertilizer from interference with any metal ions in the soil and
5 enhancing delivery of the fertilizer to the plant roots."

6 Claim 29 has been amended as follows: " administering to the foliage, a
7 monoammonium phosphate plant [soil] fertilizer [composition that includes] in
8 combination with an acid, [whereby] wherein the [said] acid is an inorganic acid or an
9 organic acid with three or less carboxyl groups whereby said acid enhances delivery of
10 the fertilizer to the plant.

11
12
13 Claim 12, 25 and 38 have been amended. Claim 12 has been amended as follows:
14 "12. (Twice amended) The method of claim [10] 3, wherein said acid is selected from
15 the group consisting of phosphoric acid, phosphorous acid, [an acid with a molecular
16 weight of not more than [400] 280], a phosphorus-containing acid with a molecular
17 weight of not more than 300, sulfuric acid, sulfurous acid, oxalic acid, and acetic acid.

18 Claim 25 has been amended as follows: "25. (Twice amended) The composition
19 of claim [23] 16, wherein said acid is selected from the group consisting of phosphoric
20 acid, phosphorous acid, [an acid with a molecular weight of not more than [400] 280], a
21 phosphorus-containing acid with a molecular weight of not more than 300, sulfuric acid,
22 sulfurous acid, oxalic acid, and acetic acid.

23 Claim 38 has been amended as follows: "38. (Twice amended) The method of
24 claim [36] 29, wherein said acid is selected from the group consisting of phosphoric acid,
25 phosphorous acid, [an acid with a molecular weight of not more than [400] 280], a
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phosphorus-containing acid with a molecular weight of not more than 300, sulfuric acid, sulfurous acid, oxalic acid, and acetic acid.

General: Claim 3 has been amended for clarification to state "...The method of claim 1 wherein said fertilizer [includes an acid,] is in combination with said acid reacting with..."

Claim 6, 19 and 32 have been amended for clarification to state "(Once amended) The method of claim... wherein said acid [organic acid] is citric acid."

Claim 25 has been amended to depend from claim 16 and claim 38 has been amended to depend from claim 29.

Claims 21 and 22 have been amended to depend from claim 20.

Claim 39 has been amended to depend from claim 29.

Rejection under 35 USC 103

Parham - The Examiner has rejected claims 1 - 11, 14, 16-24, 26-27, 29-37, 39-40 under 35 USC 103(a) as being unpatentable over Parham, Jr. et al. Claims 4, 5, 10, 11, 17, 18, 23, 24, 30, 31, 36 and 37 have been cancelled. Claims 27, 28 and 40 were previously cancelled. Your applicant comments, in addition to comments in the prior paper, that:

As stated in Claim 1 of Parham, from which all remaining Parham claims depend, "A process for sequestering and inhibiting precipitation of a micronutrient metal cation selected from the group consisting of zinc, iron, copper, and manganese, in a liquid phosphate fertilizer solution, which comprises incorporating in said solution a synergistic

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